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EXAMINER

KRASNIC, BERNARD

ART UNIT	PAPER NUMBER
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2624

NOTIFICATION DATE	DELIVERY MODE
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ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Office Action Summary	Application No. 10/699,700	Applicant(s) OZAWA, MASAHIRO	
	Examiner BERNARD KRASNIC	Art Unit 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 October 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 and 40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 and 40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. The amendment filed 10/30/2008 have been entered and made of record.
2. The Applicant has included newly added claim(s) 40.
3. The application has pending claim(s) 1-16 and 40.
4. In response to the amendments filed on 10/30/2008:

The "Objections to the claims" have been entered and therefore the Examiner withdraws the objections to the claims.
5. The Applicant's arguments with respect to claims 1-16 have been considered but are moot in view of the new ground(s) of rejection because the Applicant has amended independent claim(s) 1-16.
6. Applicant's arguments filed 10/30/2008 have been fully considered but they are not persuasive.

The Applicant alleges, "None of the applied references teach the claimed combination ..." in page 19 through "The Examiner now relies on Queiroz and Hiroshi ..." in page 21, and states respectively that the Examiner relies on Quieroz and Hiroshi to teach the deficiencies of Gentile (Gentile fails to explicitly disclose the possible lists or groups of compression schemes as separate lists or groups for each specific region

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type [text, graphic, photograph]) in order to allegedly teach making available a plurality of compression methods for each region, and that none of the references in combination or alone teach the amended claimed combination that includes the compression method selection unit that displays a plurality of compression methods on the display for each region enabling a user to select one of the plurality of compression methods in accordance with a type of the region from among the plurality of compression methods. Firstly the Examiner agrees that the three references in combination or alone do not teach the amended limitation of displaying a plurality of compression methods on the display for each region enabling a user to select one of the plurality of compression methods. However based on a further search, the Examiner believes such a feature is obvious in view of the new reference Litwiller (US 2003/0132960 A1). Gentile discloses separating and extracting different region types such as text, graphic, and photograph and compressing each different region type with different compression algorithms specific for the region type and that such a plurality of different compression algorithms are based on balancing the compression factors of compression ratio or size, computational complexity or speed, and visual quality or picture quality (see [e.g.] the rejection of claim 5 in the Non-Final Office Action dated 7/31/2008 at pages 8-13). Queiroz and Hiroshi are used to further teach that text may be efficiently encoded using standard binary coders such as MMR and JBIG and that drawing/graph information subject can be coded for example by MH coding or MR coding and that photograph information subject can be coded using MH coding or MR coding (see [e.g.] the rejection of claim 5 in the Non-Final Office Action dated 7/31/2008

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at pages 8-13). Gentile further states then that a consultant (166) is used to help in the selection of the compression algorithm (see Gentile at col. 11 at lines 19-22). Therefore Gentile as modified by Queiroz and Hiroshi set up a compression environment wherein a plurality of compression methods are available for each specific text, graphic, and photograph region type [e.g. text region type encoded using MMR and JBIG coding, drawing/graph region type encoded using MH or MR coding, and photograph region type encoded using MH or MR coding] and wherein the particular compression algorithms are determined based on a plurality of compression modes / factors [balancing the compression factors of 1 - compression ratio or size, 2 - computational complexity or speed, and 3 - visual quality or picture quality] also subject to selection by the consultant. However, the compression environment set up by Gentile as modified by Queiroz and Hiroshi does not explicitly suggest that there is a display enabling a user / consultant to select one of the plurality of compression methods [e.g. text region type encoded using MMR and JBIG coding, drawing/graph region type encoded using MH or MR coding, and photograph region type encoded using MH or MR coding] or compression modes / factors [balancing the compression factors of 1 - compression ratio or size, 2 - computational complexity or speed, and 3 - visual quality or picture quality] in accordance with a type of the region / text, graphic, photograph. The new reference Litwiller discloses a display unit that displays compression choices and having the user [similar to Gentile's consultant] select on the user touching screen display the compression parameter (see Litwiller, [0061], [0065], and [0067]). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made

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to further modify Gentile, as modified by Quieroz and Hiroshi, using Litwiller's teachings by including a display unit to Gentile's device/method in order to allow Gentile's [as modified by Quieroz and Hiroshi] compression environment to be displayed in order to enhance the selection process by allowing the user or consultant to touch the touch-sensitive display to provide a compression selection (see Litwiller, [0061], [0065], and [0067]). Therefore the claims are still not in condition for allowance because they are still not patentably distinguishable over the prior art references. Further discussions are addressed in the art rejection section below.

The Applicant alleges, "With regard to claims 2-5 ..." in page 21, and states respectively that there is no suggestion of altering the selection of the algorithm based on a preferred process mode nor is there any discussion as to how such compression factors may be balanced based on a selected preferred process mode. However the Examiner disagrees because as discussed above Gentile discloses a consultant which is used to help in the selection of the compression algorithm based on [e.g.] compression factors (see Gentile, col. 11 at lines 19-22 and 37-40). Also, the new reference Litwiller discloses a display unit that displays compression choices and having the user [similar to Gentile's consultant] select on the user touching screen display the compression parameter (see Litwiller, [0061], [0065], and [0067]). Therefore the claims are still not in condition for allowance because they are still not patentably distinguishable over the prior art references.

The Applicant alleges, "Furthermore, claims 2-5 ..." in page 21, and states respectively that the applied prior art references do not teach the compression process

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setting unit that displays a plurality of compression process modes. However the Examiner disagrees as discussed above because Gentile as modified by Queiroz and Hiroshi set up a compression environment wherein a plurality of compression methods are available for each specific text, graphic, and photograph region type [e.g. text region type encoded using MMR and JBIG coding, drawing/graph region type encoded using MH or MR coding, and photograph region type encoded using MH or MR coding] and wherein the particular compression algorithms are determined based on a plurality of compression modes / factors [balancing the compression factors of 1 - compression ratio or size, 2 - computational complexity or speed, and 3 - visual quality or picture quality] also subject to selection by the consultant and wherein Litwiller further modifies this compression environment by having the user [similar to Gentile's consultant] select on the user touching screen display the compression parameter (see Litwiller, [0061], [0065], and [0067]). Therefore the claims are still not in condition for allowance because they are still not patentably distinguishable over the prior art references.

Therefore claims 1-16 and 40 are still not in condition for allowance because they are still not patentably distinguishable over the prior art references.

Claim Rejections - 35 USC § 101

7. Claim(s) 7-11 is/are rejected under 35 U.S.C. 101 as not falling within one of the four statutory categories of invention. Supreme Court precedent¹ and recent Federal

¹ *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972); *Cochrane v. Deener*, 94 U.S. 780, 787-88 (1876).

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Circuit decisions² indicate that a statutory “process” under 35 U.S.C. 101 must (1) be tied to another statutory category (such as a particular apparatus), or (2) transform underlying subject matter (such as an article or material) to a different state or thing. While the instant claim(s) recite a series of steps or acts to be performed, the claim(s) neither transform underlying subject matter nor positively tie to another statutory category that accomplishes the claimed method steps, and therefore do not qualify as a statutory process. For example the method steps of [e.g.] region extraction, region compression, region synthesis, and compression method selection or compression process mode setting are not tied to another statutory category such as a particular apparatus (i.e. a computer processor for processing the specific method steps). Any amendment to the claim(s) should be commensurate with its corresponding disclosure.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1-16 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gentile (US 5,949,968, as applied in previous Office Action), in view of Queiroz (“Mixed Raster Content MRC model for compound image compression” – 1998 – vol.

² *In re Bilski*, 88 USPQ2d 1385 (Fed. Cir. 2008).

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3653, pages 1106-1117, as applied in previous Office Action) and Hiroshi (JP 05-110737, from Applicant's PTO 1449 – Information Disclosure Statement – IDS, as applied in previous Office Action), and further in view of Litwiller (US 2003/0132960 A1).

Re Claim 1: Gentile discloses an image processing device / processing apparatus for output to a visual-output device (see col. 2, lines 4-6), comprising a region extraction unit / within a processor for separating and extracting a character region / text type, a graphic region / graphic type and a photograph region / photograph type from image data / two-dimensional page representation (see Fig. 2, col. 2, lines 26-30); a region compression unit / within a processor for performing a compression process / different algorithms for compressing for the image data in each region / different representation types extracted by said region extraction unit (see col. 2, lines 34-38); a region synthesis unit / within a processor for synthesizing / stored sequentially or displayed together the image data of the regions / different types compressed by said region compression unit (see col. 3, lines 32-38, the compressed data is stored sequentially by the region which is essentially synthesizing or combining the compression regions, or the compressed data after being stored sequentially is decompressed and displayed on a display to the visual-output display as shown in ref. No. 18 or 80 of Fig. 1 and Fig. 3 which is essentially synthesizing or combining the compression regions); and a compression method selection unit / within a processor for selecting from among a plurality of compression methods / compression schemes, one of the plurality of compression methods / selection of compression algorithm scheme for each region / different types [visually active / graphics or pictures and for visually less active / text

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regions] for the compression process to be performed for each region / different types, wherein the selection unit enables a user / consultant to select one of the plurality of compression methods / compression algorithm schemes in accordance with a type of the region / different types among the plurality of compression methods / different compression algorithm schemes (see Gentile, col. 2, lines 34-38 and 63-63, abstract, lines 7-14, col. 10, lines 44-58, col. 11, lines 19-32, Gentile teaches selecting one of the compression mechanisms for each of the regions, according to its regions type, from a plurality of compression algorithm schemes corresponding to each different region representation type. Gentile teaches some compression schemes are: one-color encoding; two-color encoding; run-length encoding; LZW encoding; JPEG encoding; lossy encoding, lossless encoding; etc. Gentile also teaches the particular compression algorithm used for each region type is determined based on the compression factors associated with the particular region type [for example: dependent on what ratio / size, computational complexity / speed, or visual quality / picture quality is wanted to be achieved for the particular region, a particular compression scheme from the plurality of compression schemes is selected]. See Gentile, col. 11, lines 53-65, Gentile teaches updating the compression scheme for the particular region if the target compression factors are not achieved therefore showing that plural compression schemes are available for each particular type of region. See Gentile, col. 11 at lines 19-22 and 37-40, Gentile discloses a consultant which is used to help in the selection of the compression algorithm based on [e.g.] compression factors), and wherein for each type of region, the selection unit contains only compression methods only from compression

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methods in the plurality of compression methods that are designated for the type of region / different types (see Gentile, col. 5, lines 11-25 and col. 10, lines 44-58, Gentile discusses possible lists or groups [not explicitly as separate lists or groups] of compression methods for visually active / graphics or pictures and for visually less active / text regions [Gentile states *some compression schemes are one-color encoding, two-color encoding, run-length encoding, subsampling, LZW, and JPEG*, Gentile then also discusses selecting the specific compression method based on the compression factors at hand]); said region compression unit / within a processor performing the compression process / different algorithms for compressing for the image data of each region / different representation types using the compression method selected / selection of compression algorithms for the region / different types by said compression method selection unit (see Gentile, col. 2, lines 34-38 and 63-63, abstract, lines 7-14, col. 10, lines 44-58, col. 11, lines 19-32 and 53-65).

However Gentile does not explicitly disclose the possible lists or groups of compression schemes as separate lists or groups for each specific region type [text, graphic, photograph]; a display, and wherein the selection unit only displays one or more compression methods on the display for each region, enabling a user to select one of the plurality of compression methods.

Queiroz discloses *text* is efficiently encoded using standard binary coders such as *MMR and JBIG* (see Queiroz, page 1109, Section 3. Decomposition and compression analysis, paragraph 2, lines 5-6).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Gentile's method by using Queiroz's teachings by including further compression schemes in regard to the specific regions to Gentile's compression schemes in order to more efficiently compress the specific text, graphic, and photograph regions.

However Gentile, as modified by Queiroz, does not explicitly disclose the possible lists or groups of compression schemes as separate lists or groups for each specific region type [graphic, photograph]; a display, and wherein the selection unit only displays one or more compression methods on the display for each region, enabling a user to select one of the plurality of compression methods.

Hiroshi discloses *drawing/graph* information subject can be coded for example by *MH coding or MR coding* and that *photograph* information subject can be coded using *MH coding or MR coding* (see Hiroshi, abstract, CONSTITUTION, lines 5-10).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify Gentile's method, as modified by Queiroz, using Hiroshi's teachings by including further compression schemes in regard to the specific regions to Gentile's compression schemes in order to more efficiently compress the specific text, graphic, and photograph regions.

Although Gentile as modified by Queiroz and Hiroshi set up a compression environment wherein a plurality of compression methods are available for each specific text, graphic, and photograph region type [e.g. text region type encoded using MMR and JBIG coding, drawing/graph region type encoded using MH or MR coding, and

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photograph region type encoded using MH or MR coding] and wherein the particular compression algorithms are determined based on a plurality of compression modes / factors [balancing the compression factors of 1 - compression ratio or size, 2 - computational complexity or speed, and 3 - visual quality or picture quality] also subject to selection by the consultant, the compression environment set up by Gentile as modified by Queiroz and Hiroshi however does not explicitly suggest that there is a display enabling a user / consultant to select one of the plurality of compression methods [e.g. text region type encoded using MMR and JBIG coding, drawing/graph region type encoded using MH or MR coding, and photograph region type encoded using MH or MR coding].

Litwiller discloses a display unit that displays compression choices and having the user [similar to Gentile's consultant] select on the user touching screen display the compression parameter (see Litwiller, [0061], [0065], and [0067]).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify Gentile, as modified by Quieroz and Hiroshi, using Litwiller's teachings by including a display unit to Gentile's device/method in order to allow Gentile's [as modified by Quieroz and Hiroshi] compression environment to be displayed in order to enhance the selection process by allowing the user or consultant to touch the touch-sensitive display to provide a compression selection (see Litwiller, [0061], [0065], and [0067]).

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Re Claim 5: Gentile discloses an image processing device / processing apparatus for output to a visual-output device (see col. 2, lines 4-6), comprising a region extraction unit / within a processor for separating and extracting a character region / text type, a graphic region / graphic type and a photograph region / photograph type from image data / two-dimensional page representation (see Fig. 2, col. 2, lines 26-30); a region compression unit / within a processor for performing a compression process / different algorithms for compressing the for image data in each region / different representation types extracted by said region extraction unit (see col. 2, lines 34-38); a region synthesis unit / within a processor for synthesizing / stored sequentially or displayed together the image data of the regions / different types compressed by said region compression unit (see col. 3, lines 32-38, the compressed data is stored sequentially by the region which is essentially synthesizing or combining the compression regions, or the compressed data after being stored sequentially is decompressed and displayed on a display to the visual-output display as shown in ref. No. 18 or 80 of Fig. 1 or Fig. 3 which is essentially synthesizing or combining the compression regions); and a compression process mode setting unit / selection of compression algorithms using compression factors, said compression process mode setting unit contains a plurality of compression process modes / factors enabling a user / consultant to select one of the plurality of compression process modes / factors (see col. 2, lines 33-41, the selection of a plurality of different compression algorithms corresponding to different representation types with combinations are based on balancing the compression factors of compression ratio or size, computational complexity or speed and visual quality or

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picture quality, col. 11 at lines 19-22 and 37-40, Gentile discloses a consultant which is used to help in the selection of the compression algorithm based on [e.g.] compression factors); said region compression unit / within a processor using, when a speed preference mode / computational complexity is set / compression algorithms based on computation complexity factor at said compression process mode setting unit, one of a plurality of compression methods designated for the image data in each region / different types which exhibits a highest processing speed / low compression complexity to perform the compression process for the individual region (see col. 2, lines 33-41, col. 3, lines 5-10, when the selection of compression algorithms for the different representation types and their combinations is based on computational complexity, a low computational complexity results in high processing speed while a high computational complexity results in low processing speed) wherein, for each type of region / different types, the designated compression method is selected from among the plurality of compression methods / selection of compression algorithm from different compression algorithm schemes, wherein each of the plurality of compression methods is designated for the type of region / different types (see Gentile, col. 2, lines 34-38 and 63-63, abstract, lines 7-14, col. 10, lines 44-58, col. 11, lines 19-32, Gentile teaches selecting one of the compression mechanisms for each of the regions, according to its regions type, from a plurality of compression algorithms corresponding to each different region representation type. Gentile teaches some compression schemes are: one-color encoding; two-color encoding; run-length encoding; LZW encoding; JPEG encoding; lossy encoding, lossless encoding; etc. Gentile also teaches the particular compression

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algorithm used for each region type is determined based on the compression factors associated with the particular region type [for example: dependent on what ratio / size, computational complexity / speed, or visual quality / picture quality is wanted to be achieved for the particular region, a particular compression scheme from the plurality of compression schemes is selected]. See Gentile, col. 11, lines 53-65, Gentile teaches updating the compression scheme for the particular region if the target compression factors are not achieved therefore showing that plural compression schemes are available for each particular type of region.) (see Gentile, col. 5, lines 11-25 and col. 10, lines 44-58, Gentile discusses possible lists or groups [not explicitly as separate lists or groups] of compression methods for visually active / graphics or pictures and for visually less active / text regions [Gentile states some compression schemes are one-color encoding, two-color encoding, run-length encoding, subsampling, LZW, and JPEG, Gentile then also discusses selecting the specific compression method based on the compression factors at hand]), said region compression unit / within a processor using, when a picture quality preference mode / visual quality is set / compression algorithms based on visual quality at said compression process mode setting unit, one of the plurality of compression methods designated for the image data in each region / different types which exhibits a least picture quality deterioration / best visual quality to perform the compression process for the individual region (see col. 2, lines 33-41, col. 3, lines 5-10, when the selection of compression algorithms for the different representation types and their combinations is based on visual quality, a best visual quality results in the least picture quality deterioration, a worst visual quality results in

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the highest picture quality deterioration), wherein, for each type of region / different types, the designated compression method is selected from among the plurality of compression methods / selection of compression algorithm from different compression algorithm schemes, wherein each of the plurality of compression methods is designated for the type of region / different types (see Gentile, col. 2, lines 34-38 and 63-63, abstract, lines 7-14, col. 10, lines 44-58, col. 11, lines 19-32 and lines 53-65, see the similar discussion above), and said region compression unit / within a processor using, when a size preference mode / compression ratio is set / compression algorithms based on the compression ratio factor at said compression process mode setting unit, one of the plurality of compression methods designated for the image data in each region / different types which exhibits a highest compression ratio / highest compression ratio to perform the compression process for the individual region (see col. 2, lines 33-41, col. 3, lines 5-10, when the selection of compression algorithms for the different representation types and their combinations is based on compression ratio, the highest compression ratio results in a small data size, the least compression ratio results in a large data size), wherein, for each type of region / different types, the designated compression method is selected from among the plurality of compression methods / selection of compression algorithm from different compression algorithm schemes, wherein each of the plurality of compression methods is designated for the type of region / different types (see Gentile, col. 2, lines 34-38 and 63-63, abstract, lines 7-14, col. 10, lines 44-58, col. 11, lines 19-32 and lines 53-65, see the similar discussion above).

However Gentile does not explicitly disclose the possible lists or groups of compression schemes as separate lists or groups for each specific region type [text, graphic, photograph]; displays a plurality of compression process modes enabling a user to select one of the plurality of compression modes.

Queiroz discloses *text* is efficiently encoded using standard binary coders such as *MMR* and *JBIG* (see Queiroz, page 1109, Section 3. Decomposition and compression analysis, paragraph 2, lines 5-6).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Gentile's method by using Queiroz's teachings by including further compression schemes in regard to the specific regions to Gentile's compression schemes in order to more efficiently compress the specific text, graphic, and photograph regions.

However Gentile, as modified by Queiroz, does not explicitly disclose the possible lists or groups of compression schemes as separate lists or groups for each specific region type [graphic, photograph]; displays a plurality of compression process modes enabling a user to select one of the plurality of compression modes.

Hiroshi discloses *drawing/graph* information subject can be coded for example by *MH coding* or *MR coding* and that *photograph* information subject can be coded using *MH coding* or *MR coding* (see Hiroshi, abstract, CONSTITUTION, lines 5-10).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify Gentile's method, as modified by Queiroz, using Hiroshi's teachings by including further compression schemes in regard

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to the specific regions to Gentile's compression schemes in order to more efficiently compress the specific text, graphic, and photograph regions.

Although Gentile as modified by Queiroz and Hiroshi set up a compression environment wherein a plurality of compression methods are available for each specific text, graphic, and photograph region type [e.g. text region type encoded using MMR and JBIG coding, drawing/graph region type encoded using MH or MR coding, and photograph region type encoded using MH or MR coding] and where the particular compression algorithms are determined based on a plurality of compression modes / factors [balancing the compression factors of 1 - compression ratio or size, 2 - computational complexity or speed, and 3 - visual quality or picture quality] also subject to selection by the consultant, the compression environment set up by Gentile as modified by Queiroz and Hiroshi however does not explicitly suggest that there is a display enabling a user / consultant to select one of the plurality of compression modes / factors [balancing the compression factors of 1 - compression ratio or size, 2 - computational complexity or speed, and 3 - visual quality or picture quality] in accordance with a type of the region / text, graphic, photograph.

Litwiller discloses a display unit that displays compression choices and having the user [similar to Gentile's consultant] select on the user touching screen display the compression parameter (see Litwiller, [0061], [0065], and [0067]).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify Gentile, as modified by Quieroz and Hiroshi, using Litwiller's teachings by including a display unit to Gentile's device/method in order

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to allow Gentile's [as modified by Quieroz and Hiroshi] compression environment to be displayed in order to enhance the selection process by allowing the user or consultant to touch the touch-sensitive display to provide a compression selection (see Litwiller, [0061], [0065], and [0067]).

As to claim 6, the discussions are addressed with respect to claim 1. Further, Gentile's object / text, graphic and photograph or any combination which is a component of the document file / page representation in a page description language / text, graphic and photograph or any combination is similar to the image data consisting of a character region, a graphic region, and a photograph region of claim 1.

As to claims 2-4, the discussions are addressed with respect to claim 5.

As to claims 7-11, the claims are the corresponding method claims to claims 1-5 respectively. The discussions are addressed with regard to claims 1-5.

As to claims 12-16, the claims are the corresponding computer-readable medium claims to claims 1-5 respectively. The discussions are addressed with regard to claims 1-5.

As to claim 40, the discussions are addressed with respect to claim 5 [e.g. the best performance for the speed mode is the highest processing speed, the best performance for the picture quality mode is the least picture quality deterioration, and the best performance for the size preference mode is the highest compression ratio].

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Yajima discloses a compression format of MH or MR can be selected in a display by the user.

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bernard Krasnic whose telephone number is (571) 270-

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1357. The examiner can normally be reached on Mon-Thur 8:00am-4:00pm and every other Friday 8:00am-3:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jingge Wu can be reached on (571) 272-7429. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jingge Wu/

Supervisory Patent Examiner, Art Unit 2624

Bernard Krasnic

January 27, 2009